

SEQUENCE LISTING

<110> Roche Diagnostics GmbH
 <120> Expression of alkaline phosphatase in yeast

<130> 5387/00/

<140>
 <141>

<160> 38

<170> PatentIn Ver. 2.1

<210> 1
 <211> 1476
 <212> DNA
 <213> Bovine

<400> 1

gaattcctca tcccagctga ggagaaaaac cccgccttct ggaaccgcca ggcagcccg 60
 gccctttagt tagccaaagaa gttgcagccg atccagacag ctgccaagaa tgtcatcctc 120
 ttcttgggg atggatggg ggtgcctacg gtgacagcca ctcggatcct aaaggggcag 180
 atgaatggca aactggacc tgagacaccc ctggccatgg accagttccc atacgtggct 240
 ctgtccaaga catacaacgt ggacagacag gtgccagaca gcgcaggcac tgccactgcc 300
 tacctgtgtg ggtcaaggg caactacaga accatcggtg taagtgcagc cgccccctac 360
 aatcagtgca acacgacacg tggaaatgag gtcacgtctg tgatcaaccg ggccaagaaa 420
 gcagggaaagg ccgtggagt ggtgaccacc accagggtgc agcatgcctc cccagccggg 480
 gcctacgcgc acacggtaa ccgaaactgg tactcagacg ccgacctgccc tgctgatgca 540
 cagaagaatg gctgccagga catccccca cagctggct acaacatgga tattgacgtg 600
 atccctgggtg gaggccaat gtacatgttt cctgagggga cccagaccc tgaataccca 660
 gatgatgcca gtgtgaatgg agtccggaag gacaagcaga acctgggtca ggaatggcag 720
 gccaaggcacc agggagccca gtatgtgtgg aaccgcactg cgctccttca ggccggccat 780
 gactccagtg taacacacct catggccctc tttgagccgg cagacatgaa gtataatgtt 840
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 ctgagcagga accccccgggg cttctacctc ttctgtggagg gaggcccat tgaccacgg 960
 caccatgacg gcaaagctt tatggcactg actgaggcga tcattttga caatgccatc 1020
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 tatgcgtttg gcgggggttc gaggcccgat gttaatggca gcacaagcga ggaaccctca 1260
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 gtgttcgcgc gaggcccgca ggcgcacctg gtgcacggcg tgcaggagga gacccctgt 1380
 ggcacatca tggcctttgc gggctgcgtg gagccctaca ccgactgcaa tctgccagcc 1440
 cccggccaccg ccaccagcat ccccgactag ggtacc 1476

<210> 2
 <211> 40
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Artificial

<400> 2

gcgcgaattc ctcatcccg ctgaggagga aaacccggcc

<210> 3
<211> 36
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Artificial

<400> 3
cgcggttacc ctagtcgggg atgctgggtgg cggtgg

36

<210> 4
<211> 487
<212> PRT
<213> Bovine

<400> 4
Leu Ile Pro Ala Glu Glu Glu Asn Pro Ala Phe Trp Asn Arg Gln Ala
1 5 10 15

Ala Gln Ala Leu Asp Val Ala Lys Lys Leu Gln Pro Ile Gln Thr Ala
20 25 30

Ala Lys Asn Val Ile Leu Phe Leu Gly Asp Gly Met Gly Val Pro Thr
35 40 45

Val Thr Ala Thr Arg Ile Leu Lys Gly Gln Met Asn Gly Lys Leu Gly
50 55 60

Pro Glu Thr Pro Leu Ala Met Asp Gln Phe Pro Tyr Val Ala Leu Ser
65 70 75 80

Lys Thr Tyr Asn Val Asp Arg Gln Val Pro Asp Ser Ala Gly Thr Ala
85 90 95

Thr Ala Tyr Leu Cys Gly Val Lys Gly Asn Tyr Arg Thr Ile Gly Val
100 105 110

Ser Ala Ala Ala Arg Tyr Asn Gln Cys Asn Thr Thr Arg Gly Asn Glu
115 120 125

Val Thr Ser Val Ile Asn Arg Ala Lys Lys Ala Gly Lys Ala Val Gly
130 135 140

Val Val Thr Thr Arg Val Gln His Ala Ser Pro Ala Gly Ala Tyr
145 150 155 160

Ala His Thr Val Asn Arg Asn Trp Tyr Ser Asp Ala Asp Leu Pro Ala
165 170 175

Asp Ala Gln Lys Asn Gly Cys Gln Asp Ile Ala Ala Gln Leu Val Tyr
180 185 190

Asn Met Asp Ile Asp Val Ile Leu Gly Gly Arg Met Tyr Met Phe
195 200 205

Pro Glu Gly Thr Pro Asp Pro Glu Tyr Pro Asp Asp Ala Ser Val Asn
210 215 220

Gly Val Arg Lys Asp Lys Gln Asn Leu Val Gln Glu Trp Gln Ala Lys
225 230 235 240

His Gln Gly Ala Gln Tyr Val Trp Asn Arg Thr Ala Leu Leu Gln Ala
 245 250 255
 Ala Asp Asp Ser Ser Val Thr His Leu Met Gly Leu Phe Glu Pro Ala
 260 265 270
 Asp Met Lys Tyr Asn Val Gln Gln Asp His Thr Lys Asp Pro Thr Leu
 275 280 285
 Ala Glu Met Thr Glu Ala Ala Leu Gln Val Leu Ser Arg Asn Pro Arg
 290 295 300
 Gly Phe Tyr Leu Phe Val Glu Gly Gly Arg Ile Asp His Gly His His
 305 310 315 320
 Asp Gly Lys Ala Tyr Met Ala Leu Thr Glu Ala Ile Met Phe Asp Asn
 325 330 335
 Ala Ile Ala Lys Ala Asn Glu Leu Thr Ser Glu Leu Asp Thr Leu Ile
 340 345 350
 Leu Val Thr Ala Asp His Ser His Val Phe Ser Phe Gly Gly Tyr Thr
 355 360 365
 Leu Arg Gly Thr Ser Ile Phe Gly Leu Ala Pro Gly Lys Ala Leu Asp
 370 375 380
 Ser Lys Ser Tyr Thr Ser Ile Leu Tyr Gly Asn Gly Pro Gly Tyr Ala
 385 390 395 400
 Leu Gly Gly Ser Arg Pro Asp Val Asn Gly Ser Thr Ser Glu Glu
 405 410 415
 Pro Ser Tyr Arg Gln Gln Ala Ala Val Pro Leu Ala Ser Glu Thr His
 420 425 430
 Gly Gly Glu Asp Val Ala Val Phe Ala Arg Gly Pro Gln Ala His Leu
 435 440 445
 Val His Gly Val Gln Glu Glu Thr Phe Val Ala His Ile Met Ala Phe
 450 455 460
 Ala Gly Cys Val Glu Pro Tyr Thr Asp Cys Asn Leu Pro Ala Pro Ala
 465 470 475 480
 Thr Ala Thr Ser Ile Pro Asp
 485

<210> 5
 <211> 1476
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Artificial

<400> 5

gaattcttga ttccagctga agaagaaaaat ccagctttt ggaatagaca agctgctcaa 60
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 ttttgggtg atggatggg ttttccaact gttactgcta ctagaattt gaagggtcaa 180
 atgaatggta agttgggtcc agaaactcca ttggctatgg atcaatttc atacgttct 240
 ttgtctaaga cttacaatgt tgatagacaa gttccagatt ctgctggtag tgctactgct 300
 tacttgttg gtgttaaggg taattacaga actattggg tttctgctgc tgctagatac 360
 aatcaatgta atactactag aggtaatgaa gttacttctg ttattaaatag agctaagaag 420
 gctggtaagg ctgttgggtg tgttactact actagagttc aacatgcttc tccagctgg 480
 gcttacgctc atactgttaa tagaaattgg tactctgatg ctgatttgc agctgatgct 540
 caaaaagaatg gttgtcaaga tattgctgct caattggtt acaatatgga tattgatgtt 600
 attttgggtg gtggtagaaat gtacatgttt ccagaaggta ctccagatcc agaataccca 660
 gatgatgctt ctgttaatgg tgtagaaag gataagcaaa atttggttca agaatggcaa 720
 gctaaggcatc aagggtgctca atatgttgg aatagaactg ctttggtaga agctgctgat 780
 gattctagtg ttactcattt gatgggtttg tttgaaccag ctgatgatgaa gtataatgtt 840
 caacaagatc atactaagga tccaactttg gctgaaatga ctgaaagctgc tttgcaagtt 900
 ttgtctagaa atccaagagg ttttacttg tttgttgaag gtggtagaaat tgatcatggt 960
 catcatgatg gtaaggctta tatggctttg actgaagcta ttatgttga taatgctatt 1020
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 agtcatgtt tttctttgg tggttacact ttgagaggtt cttctatttt tggttggct 1140
 ccaggtaagg ctttggatag taagtcttac acttctattt tgtatggtaa tggccagg 1200
 tatgctttgg gtggtagttc tagaccagat gtaatggta gtactagtga agaaccatct 1260
 tacagacaac aagctgctgt tccattggct agtggaaactc atgggtgtga agatgttgct 1320
 gttttgcta gaggtccaca agtcatttg gttcatggtg ttcaagaaga aactttgtt 1380
 gctcatatta tggctttgc tgggtgtgtt gaaccataca ctgattgtaa tttgccagct 1440
 ccagctactg ctactagtat tccagattaa ggtacc 1476

<210> 6

<211> 78

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Artificial

<400> 6

gcgcgaattc ttgattccag ctgaagaaga aaatccagct ttttggataa gacaagctgc 60
 tcaagctttg gatgttgc 78

<210> 7

<211> 70

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Artificial

<400> 7

ccaaaaacaa aataacattc ttagcagcag tttgaattgg ttgcaacttc ttagcaacat 60
 ccaaagcttg 70

<210> 8

<211> 69

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Artificial

<400> 8

gaatgttatt ttgttttgg gtgtatggat ggggtttcca actgttactg ctactagaat 60

tttgaaggg 69

<210> 9
<211> 70
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Artificial

<400> 9
gaaaattgtatccatggccaa tggagttctt ggacccaacttaccattcat ttgacccttc 60
aaaattcttag 70

<210> 10
<211> 71
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Artificial

<400> 10
gctatggatc aatttccata cggtgcatttgc tctaagactt acaatgttga tagacaagtt 60
ccagattctg c 71

<210> 11
<211> 71
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Artificial

<400> 11
ccaatagttc tgtaattacc cttaaacacca cacaagtaag cagtagcagt accagcagaa 60
tctggaaactt g 71

<210> 12
<211> 72
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Artificial

<400> 12
gtaattacag aactattgggt gtttctgctg ctgctagata caatcaatgt aatactacta 60
gaggtaatga ag 72

<210> 13
<211> 74
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Artificial

<400> 13
agtaacaaca ccaacagcct taccagcctt cttagctcta ttaataacag aagtaacttc 60
attacctcta gtag 74

<210> 14
<211> 74
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Artificial

<400> 14
gctgttgttg ttgttactac tactagagtt caacatgctt ctccagctgg tgcttacgct 60
catactgtta atag 74

<210> 15
<211> 68
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Artificial

<400> 15
caaccattct tttgagcatc agctggcaaa tcagcatcag agtaccaatt tctattaaca 60
gtatgagc 68

<210> 16
<211> 55
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Artificial

<400> 16
gatgctcaaa agaatggttg tcaagatatt gctgctaat tggttacaa tatgg 55

<210> 17
<211> 72
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Artificial

<400> 17
ccttctggaa acatgtacat tctaccacca cccaaaataa catcaatatc catattgtaa 60
accaattgag ca 72

<210> 18
<211> 71
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Artificial

<400> 18
gtacatgttt ccagaaggta ctccagatcc agaataccca gatgatgctt ctgttaatgg 60

tgttagaaag g

71

<210> 19

<211> 73

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Artificial

<400> 19

catattgagc accttgatgc ttagcttgcc attcttgaac caaattttgc ttatccttgc 60
taacaccatt aac 73

<210> 20

<211> 71

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Artificial

<400> 20

gcatcaagggt gctcaatatg tttggaatag aactgctttg ttgcaagctg ctgatgattc 60
tagtgttact c 71

<210> 21

<211> 54

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Artificial

<400> 21

cttcatatca gctggttcaa acaaaccat caaatgagta acactagaat catc

54

<210> 22

<211> 59

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Artificial

<400> 22

gaaccagctg atatgaagta taatgttcaa caagatcata ctaaggatcc aaccttggc 59

<210> 23

<211> 67

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Artificial

<400> 23

cctcttggat ttcttagacaa aacttgcaaa gcagcttcag tcatttcagc caaagttgga 60
tccttag 67

<210> 24
<211> 69
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Artificial

<400> 24
gtctagaaat ccaagagggtt tttacttggtt tggtgaagggt ggtagaattt atcatggtca 60
tcatgatgg 69

<210> 25
<211> 73
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Artificial

<400> 25
ccttagcaat agcattatca aacataatag ctgcgtcaa agccatataa gccttaccat 60
catgatgacc atg 73

<210> 26
<211> 74
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Artificial

<400> 26
gataatgcta ttgcttaaggc taatgaattt acttctgtat tggataacttt gattttgggtt 60
actgctgatc atag 74

<210> 27
<211> 73
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Artificial

<400> 27
ccaaacccaaa aatagaagta cctctcaaag tgtaaccacc aaaagaaaaaa acatgactat 60
gatcagcagt aac 73

<210> 28
<211> 73
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Artificial

<400> 28
cttctatattt tggtttggct ccaggtaagg ctttggatag taagtcttac acttctatattt 60
tgtatggtaa tgg 73

<210> 29

<211> 76

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Artificial

<400> 29

ctagtactac cattaacatc tggtagtccaa ccaccaccca aagcataacc tggaccatta 60
ccataaaaa tagaag 76

<210> 30

<211> 77

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Artificial

<400> 30

gatgttaatg gtagtactag tgaagaacca tcttacagac aacaagctgc tgttccattg 60
gcttagtggaaa ctcatgg 77

<210> 31

<211> 73

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Artificial

<400> 31

caccatgaac caaatgagct tgtggacctc tagaaaaac agcaacatct tcaccaccat 60
gagtttcaact agc 73

<210> 32

<211> 74

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Artificial

<400> 32

gctcatttgg ttcatggtgt tcaagaagaa acttttggtg ctcattattat ggctttgct 60
ggttgtgttg aacc 74

<210> 33

<211> 82

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Artificial

<400> 33

gcgcggtaacc ttaatctgga atactagtag cagtagctgg agctggcaa ttacaatcg 60
tgtatggttc aacacaacca gc 82

<210> 34
<211> 31
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Artificial

<400> 34
gcgcgcctag gagatctaac atccaaagac g

31

<210> 35
<211> 29
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Artificial

<400> 35
cgcgcgctag cggatccgca caaacgaag

29

<210> 36
<211> 10
<212> PRT
<213> Saccharomyces cerevisiae

<400> 36
Glu Ala Glu Ala Glu Phe Leu Ile Pro Ala
1 5 10

<210> 37
<211> 4
<212> PRT
<213> Saccharomyces cerevisiae

<400> 37
Leu Ile Pro Ala
1

<210> 38
<211> 6
<212> PRT
<213> Saccharomyces cerevisiae

<400> 38
Glu Ala Glu Ala Glu Phe
1 5